

Crop Management/Agronomy

Course Description:

This course investigates advanced crop production and management topics. Students develop an understanding of fertilization methods, resource management, pest management, technology use, marketing, and world hunger. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Course Code: 011008

Endorsements

to teach: AFNR

Programs of Study to which this Course applies:

Plant Systems
Plant Systems Plus

AFNR.HS.5.1	
Develop and implement a crop management plan for a given production goal that accounts for environmental factors.	
AFNR.HS.5.1.a	Select crops based on geography and climate.
AFNR.HS.5.1.c	Develop and implement a fertilization plan for specific plants or crops.
AFNR.HS.5.2	
Utilize resources efficiently and sustainably for crop production.	
AFNR.HS.5.2.a	Evaluate the impact of using cover crops.
AFNR.HS.5.2.b	Differentiate between various erosion control methods.
AFNR.HS.5.2.c	Evaluate water requirements for plant production and select irrigation and crop management strategies to efficiently utilize water.
AFNR.HS.5.3	
Create a plan for integrated pest management for plant production.	
AFNR.HS.5.3.a	Describe pest control strategies associated with integrated pest management.
AFNR.HS.5.3.c	Explain integrated pest management practices.
AFNR.HS.5.3.d	Discuss the advantages of integrated pest management.
AFNR.HS.5.5	
Propagate, culture, and harvest plants and plant products based on current industry standards.	
AFNR.HS.5.5.a	Choose equipment for use in various crop production systems.
AFNR.HS.5.5.b	Communicate about common machinery and equipment used in plant production today.
AFNR.HS.5.5.c	Utilize technology and equipment for crop production.
AFNR.HS.5.5.e	Recognize key differences between GMO and Non-GMO crop production methods.
AFNR.HS.5.5.f	Evaluate common traits seed producers breed into new hybrids.
AFNR.HS.5.7	
Develop awareness of factors influencing and affected by global plant production.	
AFNR.HS.5.7.b	Explain imports and exports and their impact on practices and the economy.
AFNR.HS.5.7.c	Identify the major challenges of feeding the world.
AFNR.HS.5.7.d	Create a plan to combat hunger in a given area.
AFNR.HS.5.8	
Apply economic principles related to plant production.	
AFNR.HS.5.8.a	Evaluate the economic return of different agronomic and horticultural crops in a particular
AFNR.HS.5.8.b	Describe current government regulations affecting crop production and marketing.
AFNR.HS.CR.1	
Describe career opportunities and means to achieve those opportunities in each of the AFNR career pathways.	
AFNR.HS.CR.1.a	Evaluate and implement the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.CR.1.b	Examine and choose career opportunities that are matched to personal life skills, talents, and career goals in an AFNR pathway of interest.
AFNR.HS.CR.2	
Demonstrate employability skills for college and career readiness.	
AFNR.HS.CR.2.a	Model personal responsibility in the workplace and community.
AFNR.HS.CR.2.d	Synthesize information, knowledge and experience to generate original ideal and challenge assumptions in the workplace and community.
AFNR.HS.CR.2.e	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.CR.2.f	Investigate, prioritize and select solutions to solve problems in the workplace community.
AFNR.HS.CR.2.g	Contribute to team-oriented projects and builds consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.CR.3	
Identify and demonstrate personal financial management and planning.	
AFNR.HS.CR.3.a	Design and implement a personal financial management plan.
AFNR.HS.CR.4	
Identify and demonstrate workplace safety.	
AFNR.HS.CR.4.a	Identify and explain the implication of required regulations to maintain and improve safety, health and environments management systems.

AFNR.HS.CR.4.b	Apply health and safety practices to AFNR workplaces.
AFNR.HS.CR.4.c	Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.
AFNR.HS.CR.5	
Evaluate the nature and scope of the AFNR Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.	
AFNR.HS.CR.5.b	Identify public policies and examine their impact on AFNR systems.
AFNR.HS.CR.5.c	Examine the components of the AFNR systems and assess their impact on the local, state, national and global society and economy.
AFNR.HS.CR.6	
Identify and demonstrate leadership skills and traits in demand of leadership roles in the agriculture industry.	
AFNR.HS.CR.6.b	Craft SMART goals to achieve by the end of a specific agricultural education course.
AFNR.HS.CR.6.c	Write a career objective.
AFNR.HS.CR.6.f	Write and deliver a speech focused on a currently controversial topic within the agricultural industry while arguing both points of view.